

## Reversible Guest Uptake/Release by Redox-Controlled Assembly/Disassembly of a Coordination Cage

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Résumé en anglais	<p>Controlling the guest expulsion process from a receptor is of critical importance in various fields. Several coordination-cages have been recently designed for this purpose, based on various types of stimuli to induce the guest release. Herein, we report the first example of a redox-triggered process from a coordination-cage. The latter integrates a cavity whose panels are based on the extended-tetrathiafulvalene unit. The unique combination of electronic and conformational features of this framework (i.e. high-p donating properties and drastic conformational changes upon oxidation) allows the reversible disassembling/reassembling of the redox-active cavity upon chemical oxidation/reduction respectively. This cage is able to bind the three-dimensional B12F122- anion in a 1:2 (host:guest) stoichiometry. The reversible redox-triggered disassembling of the cage could be also demonstrated in the case of the host-guest complex, offering a new option for guest delivering control.</p>
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